

Application No.: 10/781,589

In the Claims:

1. (currently amended) An elongated implantable medical electrical lead for ~~electrically stimulating a human heart or sensing electrical signals originating therefrom,~~ comprising:

- a) a lead body having a proximal section and a distal sections;
- b) at least one electrode for sensing or electrically stimulating the heart coupled to one of the proximal section and the distal section;
- c) a proximal end portion comprising an electrical connector, the electrical connector being contiguous with the ~~distal~~ proximal section of the lead body;
- d) a distal end contiguous with the distal section of the lead body;
- e) at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector;

wherein the distal section of the lead body comprises at least first, ~~and second,~~ and third segments, the first segment having a bending stiffness S_{bs} which exceeds the bending stiffness S_{bt} of the second segment, the third segment having a bending different than the bending stiffness of the second segment, and

wherein the first, and second, and third segments being configured and dimensioned to impart a distally plurality of radial directed forces to the distal end of the lead when the first, ~~and second, and third~~ segments are subjected to one of a tension force and a compression force a bending moment resulting in a sufficient curvature of at least one of the first, second, and third segments ~~distal section of the lead body.~~

2.-12. (canceled)

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13. (currently amended) The medical electrical lead of claim 1, wherein the distal section of the lead body further comprises a fourth ~~third~~ segment having a bending stiffness different than which exceeds the bending stiffness of one of the first segment, the second segment, and the third segment, wherein the fourth ~~second~~ segment mechanically couples to one of said being disposed between the first, second, and third segments.

14. (currently amended) The medical electrical lead of claim 1, wherein the distal section of the lead body has a characteristic mechanically-dependent ~~comprises a third segment having a~~ bending stiffness due to a variation in the pitch of a spring-coil between the proximal section and the distal section which is less than the bending stiffness of the first segment, the first segment being disposed between the second and third segments.

15.-121. (canceled)

122. (new) A medical electrical lead according to claim 1, wherein the distal section of the lead body has a characteristic mechanically-dependent bending stiffness due at least in part to a variation in a lumen-wall thickness dimension between at least the proximal section and the distal section.

123. (new) A medical electrical lead according to claim 122, wherein the variation in the lumen-wall thickness dimension between at least the proximal section and the distal section comprises a plurality of layers of a sheathing material disposed around the periphery of the distal section.

124. (new) A medical electrical lead according to claim 1, wherein the distal section of the lead body has a characteristic mechanically-dependent bending stiffness due at least in part to a variation in a lumen-wall separation dimension as measured in a lateral orientation between at least the proximal section and the distal section.

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125. (new) A medical electrical lead according to claim 14, wherein the distal section of the lead body has a characteristic mechanically-dependent bending stiffness due at least in part to a variation in a lumen-wall thickness between at least the proximal section and the distal section.

126. (new) A medical electrical lead according to claim 14, characteristic mechanically-dependent bending stiffness due at least in part to a variation in a lumen-wall thickness dimension between at least the proximal section and the distal section.